

ENERGY FOR LIFE - BEST PRACTICE AWARD 2011

System / Location

Biogas Pilot Program / Lao PDR



The National Biogas Programme is a joint venture between SNV Netherlands Development Organization and the Ministry of Agriculture, Forestry. The Programme objective is the dissemination of domestic bio-digesters as an indigenous, sustainable energy source through the development of a commercial, market oriented, biogas sector in selected provinces of Laos. A Bio-digester is used to produce cooking gas from organic materials (cow, pig, buffalo and chicken dung). The programme was started in March 2007 and is currently effective in 5 provinces (Vientiane capital, Vientiane Province, Xiengkhouang, Savanakheth and Khammuane). To date, over 2,000 households have been equipped with bio-digesters.

Planning/Installation

SNV www.snvworld.org
Department of Livestocks and Fishery (DLF)
Biogas Pilot Program
www.biogaslao.org

Donation/Support

SNV, www.snvworld.org

Operator

Department of Livestocks and Fishery (DLF)
Biogas Pilot Program
www.biogaslao.org

PROJECT DATA SHEET

Year the installation started operating	2007
Type of system	Biogas
Type of energy produced	Clean gas for cooking and lighting
Geographical position	2 Provinces in the North, 1 Province Central and other 2 Provinces in the South of Lao PDR
Location	Program is active in 5 provinces, 71 Districts and 669 villages
Size of installation	4, 6, 8 and 10 m ³ (Bio-digester size)
Thermal Power of installation	Not applicable
Use of energy produced	Cooking and lighting
Quantity of energy produced per day	Bio-digester of 4m ³ can produce gas: 0.8-1.6 m ³ /day 6m ³ : 1.6-2.4 m ³ /day 8m ³ : 2.4-3.2 m ³ /day 10m ³ : 3.2-4.0 m ³ /day
Type of financing	Grant
Source of financing	DGIS, Dutch government
System investment cost	1,109,000 € for 4 years program
System cost per watt	100 US-\$/1m ³ of Bio-digester
Income generated from installation	One farmer can save 89 US-\$ / year from the reduction of buying charcoal or firewood Save time: 1.2 hour / day
Maintenance cost per year	No maintenance cost due to the program provided 2 years warranty. Only daily cleaning of system
Fossil fuel savings per year	Natural gas: 456,000kg Firewood: 1,399 tons Charcoal: 155 tons
CO2 reduction per year	986 tons/year
Number of beneficiaries	10,000 people benefited from the project
Presence of renewable energy country programme	Yes



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Biodigester / Cambodia

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